AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Listing of Claims:

Claims 1-17 (Cancelled).

Claim 18 (Currently Amended): A method for operating a haptic interface unit, comprising:

receiving at least velocity information data that is based on spatial vector positions by evaluating spatial directions independently from each other with respect to a position and spatial movement of at least one haptic device;

generating interaction feedback force data based on and in dependence of at least said velocity information data, said interaction feedback force data being representative for an interaction feedback force to be generated by said at least one haptic device;

transmitting said interaction feedback force data to said at least one haptic device so as to generate said interaction feedback force;

providing an inverted damping operation mode in which said interaction feedback force data are at least partly generated to be representative for an interaction feedback force which increases with a decreasing velocity and said interaction feedback force data are at least partly generated to be representative for an interaction feedback force which decreases with an increasing velocity, wherein said velocity is with respect to a respective haptic device or a pointing unit thereof; and

providing a holding force mode in which an absolute force value of the interaction feedback force or a vectorial component thereof is increased in a position dependent form to a predetermined hold force value or above, if the respective velocity or a vectorial component thereof decreases below a given threshold minimum velocity value, the predetermined hold

force value being larger than the interaction feedback force within said inverted damping operation mode.

Claim 19 (Previously Presented): The method according to claim 18, further comprising:

decreasing the absolute force value of the interaction feedback force or a vectorial component thereof to zero, if the respective velocity or a vectorial component thereof increases above a given threshold maximum velocity value.

Claim 20 (Previously Presented): The method according to claim 18, further comprising:

performing said inverted damping operation mode with respect to vectorial components of said interaction feedback force and said velocity.

Claim 21 (Previously Presented): The method according to claim 18, further comprising:

performing said inverted damping operation mode with respect to vectorial components of said interaction feedback force and said velocity in an independent manner.

Claim 22 (Previously Presented) The method according to claim 18, further comprising:

generating said interaction feedback force data to describe said interaction feedback force as a damping force, so as to generate an interaction feedback force acting against a given velocity or a vectorial component thereof.

Claim 23 (Previously Presented): The method according to claim 18, further comprising:

generating said interaction feedback force data to describe said interaction feedback force as a damping force, so as to generate an interaction feedback force acting against a given velocity or a vectorial component thereof as a counterforce or a frictional force.

Claim 24 (Previously Presented): The method according to claim 18, further comprising:

generating the interaction feedback force data to describe said interaction feedback force or a vectorial component thereof as having an absolute force value f being, at least piecewise, a positive monotonically decreasing function g of the respective velocity v or of a vectorial component thereof to fulfill the relation

$$f(v) \propto g(v).$$

Claim 25 (Previously Presented): The method according to claim 24, further comprising:

selecting said at least piecewise positive and monotonically decreasing function g to fulfill at least piecewise the relation

$$g(v) = \frac{1}{h(v)} ,$$

where h is at least piecewise a positive and monotonically increasing function of the velocity v or of a vectorial component thereof.

Claim 26 (Previously Presented): The method according to claim 24, further comprising:

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selecting said at least piecewise positive and monotonically decreasing function g to

fulfill at least piecewise the relation

$$g(v) = \frac{1}{|v|},$$

where v denotes a velocity or vectorial component thereof.

Claim 27 (Previously Presented): The method according to claim 24, further

comprising:

selecting said at least piecewise positive and monotonically decreasing function g to

be at least piecewise one of a step function, and a staircase function.

Claim 28 (Cancelled).

Claim 29 (Currently Amended): The method according to ~~claim 28~~ claim 18, further

comprising:

selecting said ~~scalar position or~~ spatial vector position to describe a position of a

respective haptic device ~~or said pointing unit thereof~~.

Claim 30 (Currently Amended): The method according to ~~claim 28~~claim 18, further

comprising:

selecting said ~~scalar position or~~spatial vector position to describe a position of a

corresponding abstract pointing means within a data structure.

Claim 31 (Currently Amended): The method according to ~~claim 28~~claim 18, further

comprising:

selecting said ~~scalar position or~~ spatial vector position to describe a position of a

corresponding abstract pointing means within a graphical user interface.

Claim 32 (Previously Presented): A haptic interface unit, comprising:

means for performing an operating method according to claim 18 and the steps

thereof.

Claim 33 (Currently Amended): A computer <u>readable storage medium</u>~~program~~

~~product, comprising~~ <u>having a</u> computer program ~~means~~<u>recorded thereon, the program</u>

adapted to perform a method<u> when it is executed on a computer or a digital signal processing</u>

<u>means</u> for operating a haptic interface unit according to claim 18 ~~and the steps thereof, when~~

~~it is executed on a computer or a digital signal processing means~~.

Claim 34 (Previously Presented): A computer readable storage medium, comprising a

computer program product according to claim 33.

Claim 35 (Currently Amended): A method for operating a haptic interface unit,

comprising:

receiving ~~at least~~ velocity information data <u>that is based on spatial vector positions by</u>

<u>evaluating spatial directions independently from each other</u> with respect to <u>a position and</u>

<u>spatial movement of</u> at least one haptic device;

generating interaction feedback force data based on and in dependence of at least said

velocity information data, said interaction feedback force data being representative for an

interaction feedback force to be generated by said at least one haptic device;

transmitting said interaction feedback force data to said at least one haptic device so as to generate said interaction feedback force;

providing an inverted damping operation mode in which said interaction feedback force data are at least partly generated to be representative for an interaction feedback force which increases with a decreasing velocity and said interaction feedback force data are at least partly generated to be representative for an interaction feedback force which decreases with an increasing velocity, wherein said velocity is with respect to a respective haptic device or a pointing unit thereof; and

providing a holding force mode in which an absolute force value of the interaction feedback force or a vectorial component thereof is increased in a position dependent form, in a step fashion, to a predetermined hold force value or above, if the respective velocity or a vectorial component thereof decreases below a given threshold minimum velocity value, the predetermined hold force value being larger than the interaction feedback force within said inverted damping operation mode.

Claim 36 (Previously Presented): The method according to claim 35, further comprising:

generating the interaction feedback force data to describe said interaction feedback force or a vectorial component thereof as having an absolute force value f being a piecewise positive decreasing function g of the respective velocity v or of a vectorial component thereof to fulfill the relation

$$f(v) \propto g(v),$$

wherein said piecewise positive decreasing function g to be one of a step function, and a staircase function.